MICRO FOCUS

# GroupWise Coexistence Solution for Exchange

## Installation and Configuration Guide

**December 2017**

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# About This Guide

This GroupWise 18 *GroupWise/Exchange Coexistence Guide* helps you synchronize address book information and provide free/busy searching between a Micro Focus GroupWise system and a Microsoft Exchange system.

## Audience

This guide is intended for network administrators who manage a GroupWise system and an Exchange system for users who need to communicate with each other as if they were all on the same email system.

## Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comment feature at the bottom of each page of the online documentation.

## Additional Documentation

For additional GroupWise documentation, see the Micro Focus GroupWise 18 Documentation website (http://www.novell.com/documentation/groupwise18/).

# 1 GroupWise/Exchange Coexistence Overview

The GroupWise/Exchange coexistence solution helps you configure your GroupWise system and your Exchange system so that they work together efficiently for users of both systems. When the coexistence solution is implemented, email users do not need to be concerned about which email system other users are on when they send messages and schedule appointments.

The coexistence solution consists of two components:

- **Address Book Synchronization:** When addressing messages, users in both email systems expect to be able to select users from the either email system in their accustomed email client.

  Address book synchronization transfers information between the GroupWise Address Book and the Exchange Global Address List (GAL). As a result, the same users can be selected in both email systems.

  For setup instructions, see Chapter 2, “GroupWise/Exchange Address Book Synchronization,” on page 9. For system requirements, see “Address Book Synchronization System Requirements” on page 14.
- **GroupWise Free/Busy Service:** When scheduling appointments, users in both email systems expect to be able to check each others’ calendaring information for available appointment times.

  The GroupWise Free/Busy Service uses Internet free/busy URLs to exchange calendaring information between the two email systems. As a result, GroupWise users can use the GroupWise Busy Search feature to check the availability of Exchange users, and Exchange users can use the Outlook Scheduling Assistant to check the availability of GroupWise users.

  For installation and configuration instructions, see Chapter 3, “GroupWise Free/Busy Service,” on page 35. For system requirements, see “GroupWise Free/Busy Service System Requirements” on page 37.

Other more general aspects of email exchange between GroupWise and Exchange are handled by standard processes:

- **Messaging:** Messages between GroupWise and Exchange pass in and out through the GroupWise GWIA and the Exchange Hub Transport just as they would if the Exchange and GroupWise systems were not otherwise more closely associated.
- **Calendaring:** Both GroupWise and Exchange support iCal appointments. The GroupWise GWIA converts GroupWise appointments into and out of iCal format, and the Exchange Hub Transport does the same for Exchange appointments.

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**IMPORTANT:** If you are already synchronizing data between your GroupWise and Exchange systems, see Appendix A, “Preexisting GroupWise/Exchange Synchronization,” on page 55.

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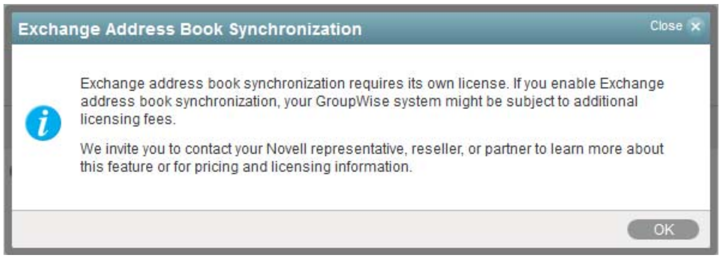
# 2 GroupWise/Exchange Address Book Synchronization

Address book synchronization between GroupWise and Exchange enables users of both email systems to easily select each other from their native address books. When you enable Address Book Synchronization, you receive the following warning:




Ensure that you understand the licensing considerations before you enable Address Book Synchronization.

Be aware that address book synchronization is a prerequisite to the exchange of calendaring information between GroupWise and Exchange users that is provided by the GroupWise Free/Busy Service. For more information, see Chapter 3, “GroupWise Free/Busy Service,” on page 35.


- “Address Book Synchronization Functionality” on page 10
- “Address Book Synchronization Architecture” on page 12
- “Address Book Synchronization System Requirements” on page 14
- “Planning for Address Book Synchronization” on page 15
- “Preparing for Address Book Synchronization” on page 25
- “Configuring the MTA for Address Book Synchronization” on page 26
- “Performing the Initial Address Book Synchronization” on page 29
- “Testing Address Book Synchronization” on page 30
- “Monitoring Address Book Synchronization” on page 33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**IMPORTANT:** If you are already synchronizing data between your GroupWise 18 system and an Exchange system, you must complete “Configuring the MTA for Address Book Synchronization” on page 26 in order to see the external GroupWise objects in the GroupWise Admin console.

If you are already synchronizing data between your GroupWise and Exchange systems by using a method other than the GroupWise/Exchange Coexistence solution, see Appendix A, “Preexisting GroupWise/Exchange Synchronization,” on page 55.

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# Address Book Synchronization Functionality

Address book synchronization between GroupWise and Exchange is performed by the GroupWise MTA.

The MTA always synchronizes certain types of objects. You can choose to synchronize other types of objects, based on the needs of your GroupWise and Exchange systems.


- "Object Synchronization" on page 10
- "Object Visibility in the GroupWise Address Book" on page 10
- "Object Naming Consideration" on page 11
- "Attribute Synchronization" on page 11
- "Address Book Modifications" on page 11


## Object Synchronization

The following GroupWise and Exchange objects can be synchronized:

- **Users** (always synchronized)
- **Groups/distribution groups** (always synchronized)

  GroupWise allows five levels of nested groups. Exchange allows deeper nesting. Exchange distribution groups that are nested deeper than five levels are synchronized to GroupWise, but the GroupWise client cannot send to recipients in the deeper levels. For best results, reorganize nested Exchange distribution groups that exceed five levels deep.
- **Resources** (always synchronized)
- **External users, groups/distribution groups, and resources** (optional; not synchronized by default)

  External objects represent objects in other email systems that are present in your email system for addressing purposes only. External users do not have mailboxes in your email system. Their address book entries contain only email addresses.

Objects can be synchronized between one GroupWise system and one or more Exchange systems.

## Object Visibility in the GroupWise Address Book

Visibility is an attribute of GroupWise users, groups, and resources that determines whether or not those objects appear in the GroupWise Address Book. GroupWise objects with visibility set to System are synchronized. This is the default visibility. GroupWise objects with visibility set to Domain, Post Office, or None are not synchronized unless the External Sync Override setting for the object is set to Synchronize Regardless of Visibility.

GroupWise users and resources are created with System visibility by default.

GroupWise groups are created with Post Office visibility by default. They must be changed to System visibility in order to synchronize to Exchange.

For more information about object visibility, see "Controlling Object Visibility" in the *GroupWise 18 Administration Guide*.

For more information about the External Sync Override setting, see "Manually Creating GroupWise Accounts" in the *GroupWise 18 Administration Guide*.

# Object Naming Consideration

Characters that are valid and even desirable in the name of a user, group, or resource might not be valid in an email address. Such characters include spaces and certain accented and special characters.

When an object name includes any character that is not valid in an email address, that object is not synchronized. For such an object, you must set up a preferred email ID in order to ensure that it has a valid email address.

For instructions on providing valid email addresses for GroupWise objects, see “Overriding Internet Addressing” in the *GroupWise 18 Administration Guide*:

# Attribute Synchronization

The following types of information (attributes) are always synchronized for GroupWise and Exchange users:

- Name
- Title
- Description
- Phone numbers
- Address
- Company
- Department
- Location
- Internet domain
- Email address
- Free/busy URL

# Address Book Modifications

After initial address book synchronization, the MTA monitors the GroupWise and Exchange objects for changes. When changes occur in the GroupWise Address Book, they are synchronized to Exchange. When changes occur in the Exchange Global Address List (GAL), they are synchronized to GroupWise.

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**IMPORTANT:** GroupWise Address Book information should not be modified from Exchange, and Exchange GAL information should not be modified from GroupWise. Any changes that are not made in the native email system are overwritten during the next synchronization cycle.

---

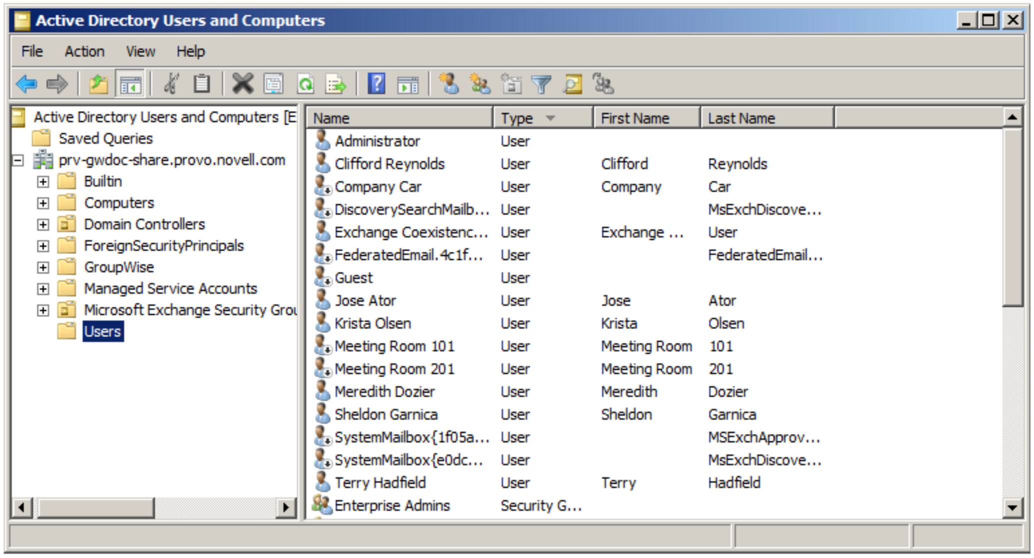
# Address Book Synchronization Architecture

When performing address book synchronization, the MTA reads information in the GroupWise Address Book and in Active Directory. Information in the GroupWise Address Book is synchronized into Active Directory, and information in Active Directory is synchronized into the GroupWise Address Book.


- "Exchange Objects" on page 12
- "GroupWise External Domain Object for Exchange Users" on page 13
- "GroupWise Objects" on page 14
- "Active Directory Contexts for GroupWise Objects" on page 14


## Exchange Objects

In Active Directory, users, distribution groups, and resources can be located in one or more Active Directory contexts, typically under the Users context.




When you configure address book synchronization, you choose the specific contexts from which you want to synchronize Exchange objects to GroupWise.

Distribution groups and resources are typically located in the same contexts with users, and are synchronized along with them.

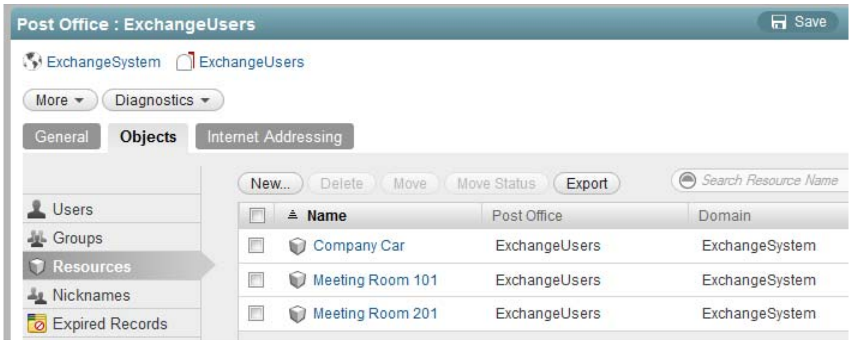
# GroupWise External Domain Object for Exchange Users

After address book synchronization, Exchange objects are organized under an External Domain object in the GroupWise Admin console. The original Active Directory context of each object is represented by an External Post Office object. As a result, Exchange objects are organized under the External Domain object parallel to how they are organized in your Exchange system.

Exchange users are represented as GroupWise External User objects.

Exchange distribution groups are represented as GroupWise External Group objects.

Exchange resources are represented as GroupWise External Resource objects.



## GroupWise Objects

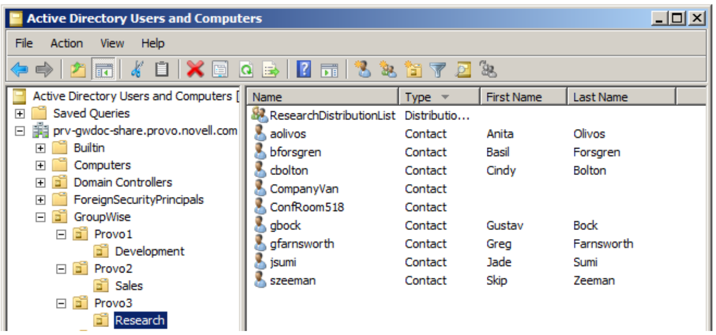
By default, all GroupWise users, groups, and resources in the GroupWise Address Book are synchronized to Exchange, unless their visibility is restricted. For more information, see "Object Visibility in the GroupWise Address Book" on page 10.

If necessary, you can restrict this scope by creating a group of GroupWise users, groups, and resources to synchronize to Exchange.

Although GroupWise object information is synchronized into Active Directory, Exchange object information is synchronized into the GroupWise Address Book, not into the LDAP directory that might be associated with your GroupWise system.

## Active Directory Contexts for GroupWise Objects

After address book synchronization, GroupWise objects are organized under a new Active Directory folder that is created specifically to hold synchronized GroupWise objects. GroupWise domains are organized into subfolders under the GroupWise folder. GroupWise post offices are organized into subfolders under their respective domain folders. As a result, GroupWise objects are organized in Active Directory parallel to how they are organized in your GroupWise system.




GroupWise users are represented in Active Directory as Exchange Contact objects.

GroupWise resources are also represented as Exchange Contact objects, rather than as Exchange Resource objects. Exchange resources have mailboxes just as GroupWise resources do, and a mailbox cannot be on both sides of the synchronization process. Therefore, GroupWise resources cannot be synchronized as Exchange resources.

GroupWise groups are represented as Exchange Distribution Group objects.

# Address Book Synchronization System Requirements

Before you configure address book synchronization, ensure that your GroupWise and Exchange systems meet the following system requirements:

- ❒ GroupWise 2012 SP2 or later Message Transfer Agent (MTA)
- ❒ Microsoft Exchange 2010 or 2013

One GroupWise system can be synchronized with one or more Exchange systems.

If you want to use the Outlook Scheduling Assistant to search the calendars of GroupWise users, see "GroupWise Free/Busy Service System Requirements" on page 37 for additional user requirements.

# Planning for Address Book Synchronization

**IMPORTANT:** If you are already synchronizing data between your GroupWise and Exchange systems, see Appendix A, “Preexisting GroupWise/Exchange Synchronization,” on page 55.

The GroupWise/Exchange Address Book Synchronization Worksheet helps you gather the information that you need to set up address book synchronization.

In a simple scenario, you need one worksheet to gather information for your entire GroupWise system and for one Exchange server. In more complex scenarios, you need multiple worksheets, depending on the size of your GroupWise and Exchange systems.

This planning section focuses on the simplest scenario, but presents alternatives for handling more complex scenarios.


- “Gathering GroupWise System Information” on page 15
- “Gathering Exchange System Information” on page 18
- “GroupWise/Exchange Address Book Synchronization Worksheet” on page 23


## Gathering GroupWise System Information

Address book synchronization requires the following information about your GroupWise system and about how you want address book synchronization to take place:


- “MTA for Address Book Synchronization” on page 15
- “Synchronization Schedule” on page 16
- “Synchronization Scope for GroupWise Objects” on page 16
- “Synchronization of External Objects” on page 16
- “GroupWise External Domain Object” on page 17
- “GWIA Link for the External Domain” on page 18


### MTA for Address Book Synchronization

In order for address book synchronization to occur between GroupWise and Exchange, at least one MTA in your GroupWise system must be configured to perform it. You can configure just one MTA to perform address book synchronization for your entire GroupWise system and all Exchange servers. Or you can configure multiple MTAs to perform address book synchronization for specific Exchange servers.

You can start by configuring just one MTA for address book synchronization in order to understand and test the synchronization process. You can then configure additional MTAs if your GroupWise system includes multiple Exchange servers in distant locations, or if you want to spread out the synchronization load across multiple MTAs.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **MTA to Perform Synchronization**, specify the GroupWise domain whose MTA you want to configure to perform address book synchronization.

Use a separate GroupWise/Exchange Address Book Synchronization Worksheet for each MTA that you want to configure for address book synchronization.

## Synchronization Schedule

The MTA performs address book synchronization according to the schedule you specify. You can start address book synchronization at a specified time each day and repeat it at a specified interval.

As you are setting up address book synchronization, you can manually request for the MTA to perform address book synchronization as needed. Thereafter, performing scheduled address book synchronization once a day can be sufficient.

If you have multiple MTAs performing address book synchronization, you can configure them with different synchronization schedules.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Hour to Begin Synchronization**, specify the number of hours after midnight when you want the first address book synchronization to occur, for example, 3 for 3:00 a.m.

Under **Interval between Synchronizations**, specify the number of hours between the beginning of each address book synchronization. The smallest interval is 1 hour.

## Synchronization Scope for GroupWise Objects

By default, the MTA synchronizes all GroupWise objects in the GroupWise Address Book (except for external objects and objects with limited visibility).

To restrict the GroupWise objects that are synchronized to Exchange, you must collect them into a GroupWise group.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Limit to Members of GroupWise Group**, specify the GroupWise group of objects to synchronize with Exchange.

**IMPORTANT:** You must create the group with the subset of GroupWise objects before you can configure address book synchronization.

## Synchronization of External Objects

By default, the MTA does not synchronize external users, groups, and resources. External objects represent objects in other email systems. They are not part of your GroupWise system. External users do not have GroupWise mailboxes and cannot log in to GroupWise.

If external objects contain address information that you want represented in your Exchange system, you can choose to synchronize external objects.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Synchronize GroupWise External Objects to Exchange**, mark **Yes** if you want to synchronize external objects.

## GroupWise External Domain Object

After address book synchronization, Exchange objects are organized under an External Domain object in the GroupWise Admin console. The original Active Directory context of each object is represented by an External Post Office object. As a result, Exchange objects are organized under the External Domain object parallel to how they are organized in your Exchange system.

Exchange users are represented as GroupWise External User objects.

The GroupWise External Domain object corresponds to an Exchange synchronization profile on the MTA object. In a simple scenario, one Exchange synchronization profile can synchronize the following objects:

- All GroupWise objects

  or

  Those GroupWise objects that are included in a single GroupWise group

  and
- All Exchange objects that are located in one or more contexts on a single Active Directory server

  or

  Those Exchange objects that are included in a single Active Directory group

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **GroupWise External Domain Name for Exchange Objects**, specify the name for the GroupWise External Domain object where you want Exchange objects to be synchronized.

For example, you could create an External Domain object named `ExchangeSystem`.

Multiple GroupWise external domains and associated Exchange synchronization profiles are needed in a more complex scenarios such as the following:

- Multiple Active Directory servers
- Multiple subsets of GroupWise objects as defined in GroupWise groups
- Multiple subsets of Exchange objects as defined in Active Directory groups

Use a separate GroupWise/Exchange Address Book Synchronization Worksheet for each GroupWise external domain and associated Exchange synchronization profile that you need to create.

## GWIA Link for the External Domain

In order to make the GroupWise external domain for Exchange users cooperate with the rest of your GroupWise system, you must create a link between it and a GWIA in a regular domain. If email is already passing between the GroupWise and Exchange systems, you can select a GWIA that is already in use for this purpose. Or you can set up a new GWIA.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Internet Agent for Default MTA Gateway Link**, specify the name of the GWIA (*domain_name*.GWIA) that you want to link to the external domain.

# Gathering Exchange System Information

Address book synchronization requires the following information about your Exchange system and about how you want address book synchronization to take place:


- "Active Directory Server Information" on page 18
- "Active Directory Credentials" on page 19
- "Active Directory Contexts of Exchange Objects" on page 20
- "Synchronization Scope for Exchange Objects" on page 21
- "Synchronization of Exchange Mail Contacts" on page 21
- "Active Directory Display Name Format for GroupWise Users" on page 21
- "Active Directory Context for GroupWise Objects" on page 22
- "Exchange Global Address List" on page 22
- "Exchange Client Access Server URL" on page 23


## Active Directory Server Information

The MTA needs the IP address or DNS hostname and the port number of an Active Directory server. The MTA gains access to the objects in your Exchange system through LDAP authentication to Active Directory.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **LDAP Server Address**, specify the IP address or DNS hostname of an Active Directory server.

Under **LDAP Server Port**, specify the port number on which the MTA can communicate with the Active Directory server. Specify 636 for a secure SSL connection or 389 for a non-secure connection.

If your Exchange system requires SSL, the MTA also needs to know the location of the SSL key file for the Active Directory Server. This key file is a certificate file that can be exported from the certificate authority on the Active Directory server, and then copied to a location where the MTA can access it using the specified path name.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Use SSL**, mark **Yes** or **No**. If you are using SSL, specify the full path name of the SSL certificate for the Active Directory server.

**IMPORTANT:** If you are using SSL, contact the administrator of the Active Directory server to obtain the SSL certificate.

Use a separate GroupWise/Exchange Address Book Synchronization Worksheet for each Active Directory server that the MTA needs to communicate with.

## Active Directory Credentials

The MTA needs to authenticate to your Exchange system through Active Directory as a specific Active Directory user.

You should create a new, dedicated Active Directory user specifically for this purpose, rather than using an existing user. This MTA synchronization user must:

- Have sufficient rights to create objects in Active Directory
- Be a member of the Active Directory Domain Admins group

  If you do not want to make the MTA synchronization user a member of this group, follow the instructions in "Restricting the Rights of the MTA Synchronization User" on page 19.

Use either of the following formats to specify the user:

- `cn=`*`ldapuser`*`,cn=users,dc=`*`yourcompanyname`*`,dc=com`
- *`ldapuser@yourcompanyname`*`.com`

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **LDAP User**, specify the Active Directory user that the MTA can use to authenticate to your Exchange system.

Under **LDAP Password**, specify the password for the MTA synchronization user.

**IMPORTANT:** Create the MTA synchronization user before starting to configure address book synchronization. If you do not want the MTA synchronization user to be a member of the Active Directory Domain Admins group, follow the instructions below at the same time you create the user.

### Restricting the Rights of the MTA Synchronization User

If you do not want to add the MTA synchronization user to the Active Directory Domain Admins group, you must manually create the Active Directory context for GroupWise objects before performing the address book synchronization and configure it with the desired rights for the MTA synchronization user. (As a member of the Domain Admins group, the MTA would create the context for you.)

In Active Directory Users and Computers:

1. Create the Active Directory context for GroupWise objects:
   - **1a** Right-click the Active Directory server, then click **New > Organizational Unit**.
   - **1b** Specify a unique name for the new organizational unit, then click **OK**.
2. Right-click the new organizational unit, then click **Delegate Control**.
3. Click **Next** to start the Delegation of Control Wizard.

4 Select the MTA synchronization user:

4a Click **Add**.

4b Specify the object name of the MTA synchronization user, then click **Check Names** to verify it.

4c Click **OK** to accept it.

4d Click **Next** to continue.

5 Click **Create a custom task to delegate**, then click **Next**.

6 Configure the task to delegate to the MTA synchronization user:

6a Select **Only the following objects in the folder**, then select the following options:

**Contact objects**
**Group objects**
**Organization Unit objects**

6b Select the following additional options:

**Create selected objects in this folder**
**Delete selected objects in this folder**

6c Click **Next** to continue.

7 Select the permissions for the MTA synchronization user to have when performing the task:

7a In the **Permissions** list, select the following permissions:

**Read**
**Write**
**Read All Properties**
**Write All Properties**

7b Click **Next** to continue.

8 Click **Finish**.

## Active Directory Contexts of Exchange Objects

The MTA looks for Exchange users, distribution groups, and resources in one or more Active Directory contexts that you specify. Optionally, the MTA can look for Exchange objects in contexts beneath the context that you specify.

Specify the Active Directory context for Exchange objects in the following format:

```
cn=container,dc=domain_component,dc=domain_component,...
ou=container,dc=domain_component,dc=domain_component,...
```

For example:

```
cn=Users,dc=exchsvr,dc=yourcompanyname,dc=com
```

If the context is not under Users, use `ou` instead of `cn`.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Base Contexts of Exchange Objects**, specify the Active Directory context where Exchange objects are located. Mark whether the MTA should search subcontexts in addition to the specified context.

After address book synchronization, Exchange objects are organized under a GroupWise External Domain object. For more information, see "GroupWise External Domain Object" on page 17. The original Active Directory context is represented by an External Post Office object. You choose the name of the External Post Office object. It must be different from the name of the External Domain object.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Base Contexts of Exchange Objects**, specify the name for the External Post Office object that you want to represent the Active Directory context where Exchange objects are located.

For example, you could name the External Post Office object `ExchangeUsers`.

## Synchronization Scope for Exchange Objects

By default, the MTA synchronizes all Exchange users, distribution groups, and resources in the Active Directory contexts that you specify. To restrict which Exchange objects are synchronized, you must collect the objects into an Exchange distribution group.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Limit to Members of Exchange Distribution Group**, list the Exchange distribution group of Exchange objects to synchronize with GroupWise.

**IMPORTANT:** Ensure that the distribution group contains the correct subset of Exchange objects before address book synchronization begins.

## Synchronization of Exchange Mail Contacts

By default, the MTA does not synchronize Exchange Mail Contacts. Mail Contacts represent objects in other email systems. Mailbox Contacts do not have Exchange mailboxes and cannot log in to Exchange. They are not part of your Exchange system.

If Mail Contacts contain address information that you want represented in your GroupWise system, you can choose to synchronize Mail Contacts.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Synchronize Exchange Mail Contacts to GroupWise**, mark **Yes** if you want to synchronize Mail Contacts.

## Active Directory Display Name Format for GroupWise Users

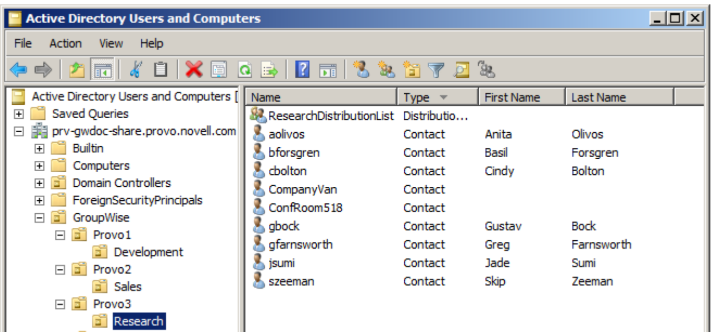
By default, the MTA synchronizes GroupWise users to Active Directory with their names formatted with first names followed by last names. The display name format in Active Directory is what Outlook users see when they select recipients for messages. You can change the order of the names if necessary.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Active Directory Display Name Format**, mark the desired ordering of first names and last names.

## Active Directory Context for GroupWise Objects

After address book synchronization, GroupWise objects are organized under a new Active Directory folder that is created specifically to hold synchronized GroupWise objects. GroupWise domains are organized into subfolders under the GroupWise folder. GroupWise post offices are organized into subfolders under their respective domain folders. As a result, GroupWise objects are organized in Active Directory parallel to how they are organized in your GroupWise system.




GroupWise users are represented in Active Directory as Exchange Contact objects.

GroupWise resources are also represented as Exchange Contact objects, rather than as Exchange Resource objects. Exchange resources have mailboxes just as GroupWise resources do, and a mailbox cannot be on both sides of the synchronization process. Therefore, GroupWise resources cannot be synchronized as Exchange resources.

GroupWise groups are represented as Exchange Distribution Group objects.

Specify the Active Directory context for GroupWise objects in the following format:

`ou=GroupWise,dc=`*`exchsvr`*`,dc=`*`yourcompanyname`*`,dc=com`

---

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Base Context for GroupWise Objects**, specify the Active Directory context that you want the MTA to create for GroupWise objects.

---

## Exchange Global Address List

By default, GroupWise objects are added to the default Exchange Global Address List (GAL). If you have created multiple Global Address Lists in your Exchange system, and if you want GroupWise objects added to one of the Global Address Lists that you have created, you must specify the DN of the GAL that you want GroupWise users added to. Use the following format to specify the GAL DN:

```
CN=Default Global Address List,CN=All Global Address Lists,
   CN=Address Lists Container,CN=Exchange Organization,
   CN=Microsoft Exchange,CN=Services,CN=Configuration,
   DC=exchmail,DC=yourcompanyname,DC=com
```

---

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **Exchange Global Address List DN**, specify the CN for the GAL where you want the MTA to add GroupWise objects.

---

## Exchange Client Access Server URL

The GroupWise Free/Busy Service enables GroupWise users and Exchange users to access each other’s calendar information when scheduling appointments. For details, see Chapter 3, “GroupWise Free/Busy Service,” on page 35. Address book synchronization must be set up and functioning correctly in order for the GroupWise Free/Busy Service to function.

The calendar information is exchanged between GroupWise and Exchange through Internet free/busy URLs:

```
https://exchange_server/ngwfbs/exchange/exchange_userid@exchange_domain.vfb
https://exchange_server/ngwfbs/exchange/gw_userid@gw_internet_domain.vfb
```

Each Exchange user's Internet free/busy URL based on the URL of an Exchange server that has the Client Access Server (CAS) role installed. During address book synchronization, Internet free/busy URLs are added to the Exchange user's External User objects in the GroupWise system. Without the Internet free/busy URL for each Exchange user, GroupWise users cannot perform Busy Searches on Exchange users.

Specify the URL of an CAS server in the following format:

```
https://exchange_server
```

By default, the CAS server requires a secure SSL connection. Therefore, you must use `https` in the URL.

**GROUPWISE ADDRESS BOOK SYNCHRONIZATION WORKSHEET**

Under **GroupWise Free/Busy Service Base URL**, specify the URL of a CAS server, where you plan to install the GroupWise Free/Busy Service.

# GroupWise/Exchange Address Book Synchronization Worksheet

| Admin Console Field | Value for Your GroupWise or Exchange System | Explanation |
|---|---|---|
| **MTA to Perform Synchronization** | | “MTA for Address Book Synchronization” on page 15 |
| | **Exchange Synchronization Tab** | |
| **Synchronization Schedule**<br>◆ Hour to begin Exchange address book synchronization<br>◆ Interval between synchronizations | | “Synchronization Schedule” on page 16 |
| **Exchange Connection Tab** | | |
| **Profile Name** | | Specify a unique name for the Exchange Synchronization profile. |

| Admin Console Field | Value for Your GroupWise or Exchange System | Explanation |
|---|---|---|
| **Active Directory Server Information**<br>◆ LDAP server address<br>◆ LDAP server port<br>Default secure port: 636<br>Default non-secure port: 389 | | "Active Directory Server Information" on page 18 |
| **Active Directory Server Security**<br>◆ Use SSL<br>◆ Yes<br>LDAP SSL certificate<br>◆ No | | "Active Directory Server Information" on page 18 |
| **Active Directory Credentials**<br>◆ LDAP email or DN<br>For example, `ldapuser@company.com`<br>◆ LDAP password | | "Active Directory Credentials" on page 19 |
| | **Sync to Active Directory Tab** | |
| **Base Context for GroupWise Objects**<br>For example:<br>`ou=GroupWise,dc=exchsvr, dc=yourcompanyname,dc=com` | | "Active Directory Context for GroupWise Objects" on page 22 |
| **Internet Agent for Default MTA Gateway Link** | | "GWIA Link for the External Domain" on page 18 |
| **GroupWise Free/Busy Service Base URL**<br>`https://exchange_server` | | "Exchange Client Access Server URL" on page 23 |
| **Active Directory Display Name Format**<br>◆ First Name Last Name<br>◆ Last Name First Name | | "Active Directory Display Name Format for GroupWise Users" on page 21 |
| **Synchronize GroupWise External Objects to Exchange?**<br>◆ Yes<br>◆ No | | "Synchronization of External Objects" on page 16 |
| **Limit to Members Of**<br>◆ GroupWise group | | "Synchronization Scope for GroupWise Objects" on page 16 |

| Admin Console Field | Value for Your GroupWise or Exchange System | Explanation |
|---|---|---|
| | **Sync to GroupWise Tab** | |
| **GroupWise External Domain for Exchange Objects**<br><br>For example, `ExchangeSystem` | | "GroupWise External Domain Object" on page 17 |
| **Base Contexts of Exchange Objects**<br><br>◆ Base context<br>For example, `cn=Users,dc=exchsvr,dc=yourcompanyname,dc=com`<br>◆ GroupWise post office name<br>For example, `ExchangeUsers`<br>◆ Process subcontexts<br>  ◆ Yes<br>  ◆ No | | "Active Directory Contexts of Exchange Objects" on page 20 |
| **Synchronize Exchange Mail Contacts to GroupWise?**<br><br>◆ Yes<br>◆ No | | "Synchronization of Exchange Mail Contacts" on page 21 |
| **Synchronize Only Members of**<br><br>◆ Exchange distribution group | | "Synchronization Scope for Exchange Objects" on page 21 |
| **Exchange Global Address List DN** | | "Exchange Global Address List" on page 22 |

# Preparing for Address Book Synchronization

1. (Conditional) If you are already synchronizing data between your GroupWise and Exchange systems.

   See Appendix A, "Preexisting GroupWise/Exchange Synchronization," on page 55.
2. Create an Active Directory user for the MTA to log in as so you can access your Exchange system.

   See "Active Directory Credentials" on page 19.
3. (Conditional) If your Exchange system requires SSL, obtain the SSL certificate for the Active Directory server.

   See "Active Directory Server Information" on page 18.
4. (Conditional) If you want to synchronize only a subset of GroupWise users, groups, and resources, create a group of the GroupWise objects that you want to synchronize to Exchange.

   "Synchronization Scope for GroupWise Objects" on page 16.

5 (Conditional) If you want to synchronize only a subset of Exchange users, distribution groups, and resources in a context on an Active Directory server, create an Active Directory group of Active Directory objects that you want to synchronize to GroupWise.

   See "Synchronization Scope for Exchange Objects" on page 21.

6 (Conditional) If you have Exchange distribution groups that are nested more than five levels deep, reorganize them so that they are no deeper than five levels.

7 Ensure that GroupWise groups that you want to synchronize are configured with their Visibility option set to System.

   See "Object Visibility in the GroupWise Address Book" on page 10.

8 Ensure that all objects that you want to synchronize have valid email addresses.

   See "Object Naming Consideration" on page 11.

9 Ensure that the MTA that you want to configure for address book synchronization meets the requirements.

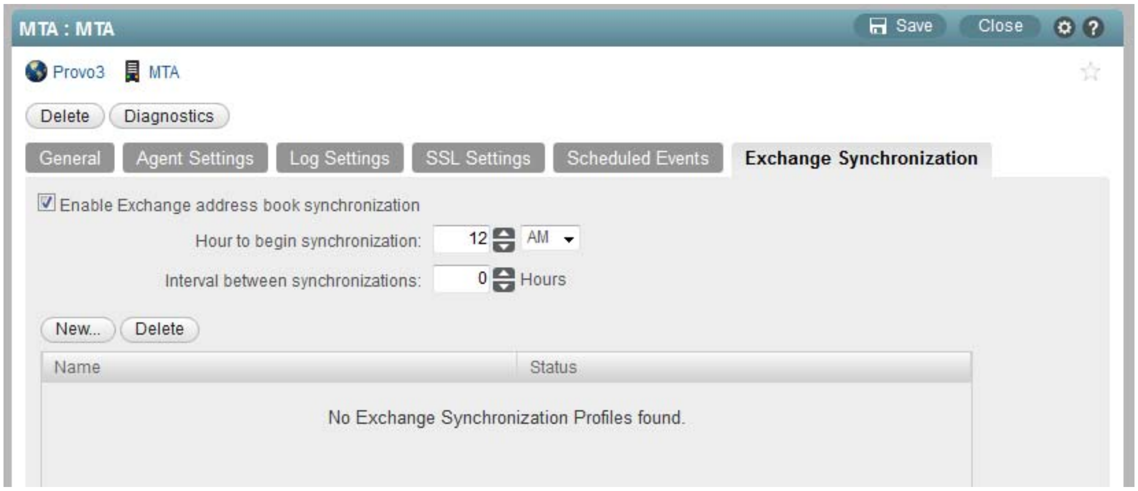
   See "Address Book Synchronization System Requirements" on page 14.

10 Continue with Configuring the MTA for Address Book Synchronization.

# Configuring the MTA for Address Book Synchronization

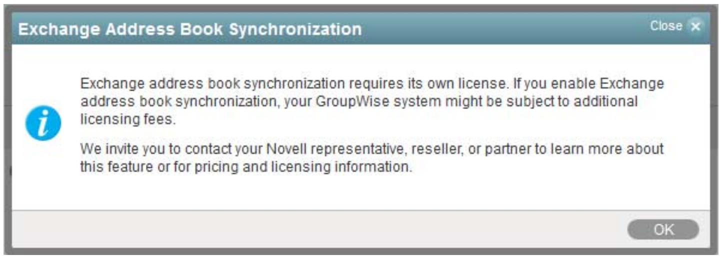
After you have completed the tasks listed in "Preparing for Address Book Synchronization" on page 25, you are ready to configure the MTA for address book synchronization.

1 In the GroupWise Admin console, browse to and click the MTA that you want to configure for address book synchronization, then click the **Exchange Synchronization** tab.




2 Select **Exchange Synchronization**.

   You receive the following notification:



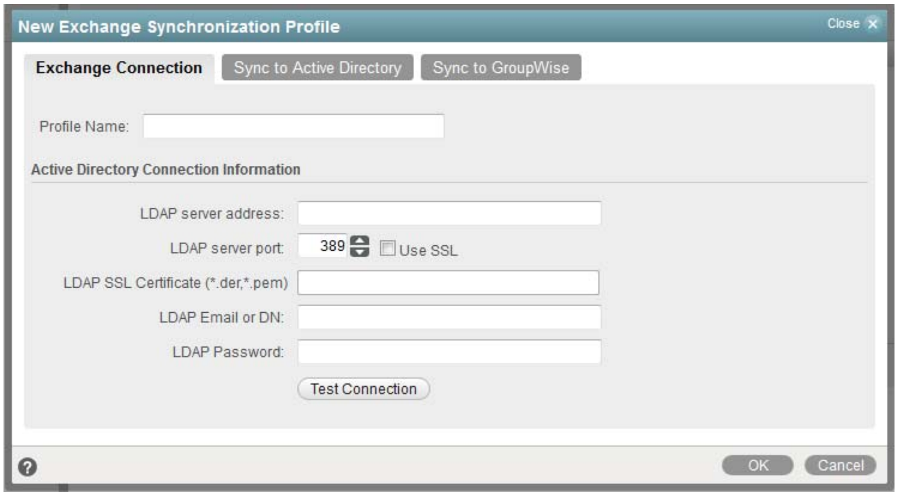

**3** Click **OK** to confirm your acceptance of licensing terms for the Exchange synchronization feature.

**4** On the **Exchange Synchronization** tab, fill in the following fields to configure address book synchronization for this MTA:

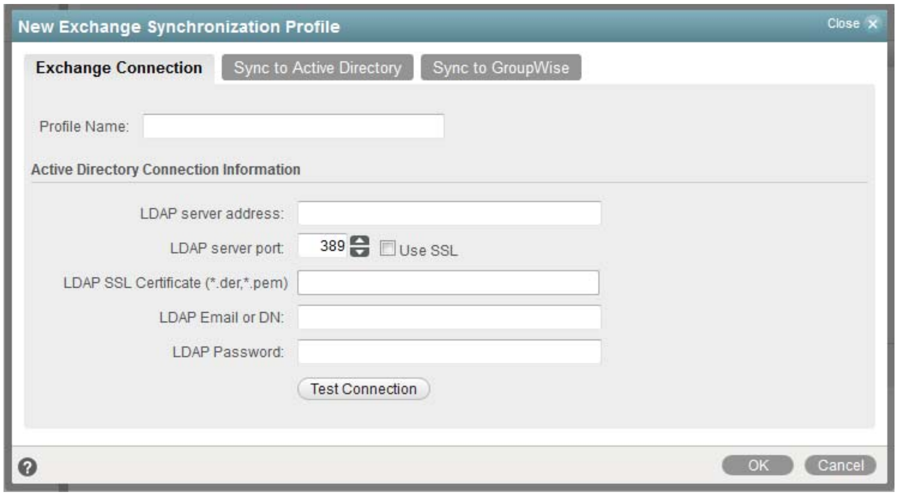
Hour to Begin Synchronization
Interval between Synchronizations

**5** Create an Exchange synchronization profile:

**5a** Above the **Exchange Synchronization Profiles** list, click **New**.




**5b** On the **Exchange Connection** tab, fill in the following fields:

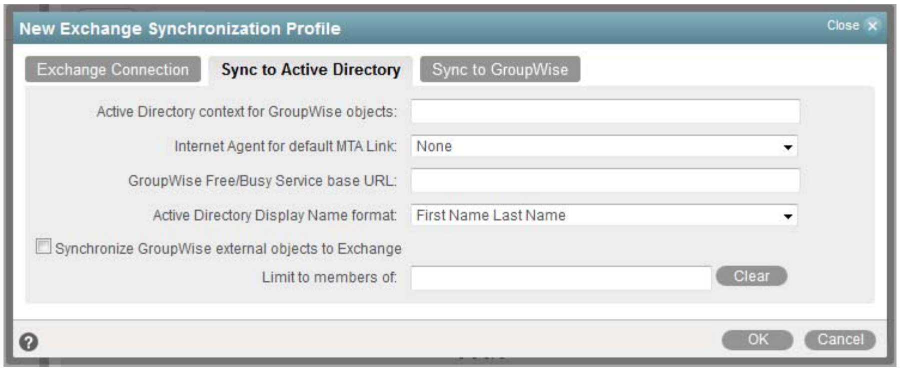


LDAP Server Address
LDAP Server Port
Use SSL
LDAP SSL Certificate
LDAP Email or DN
LDAP Password

**5c** Click **Test Connection**.

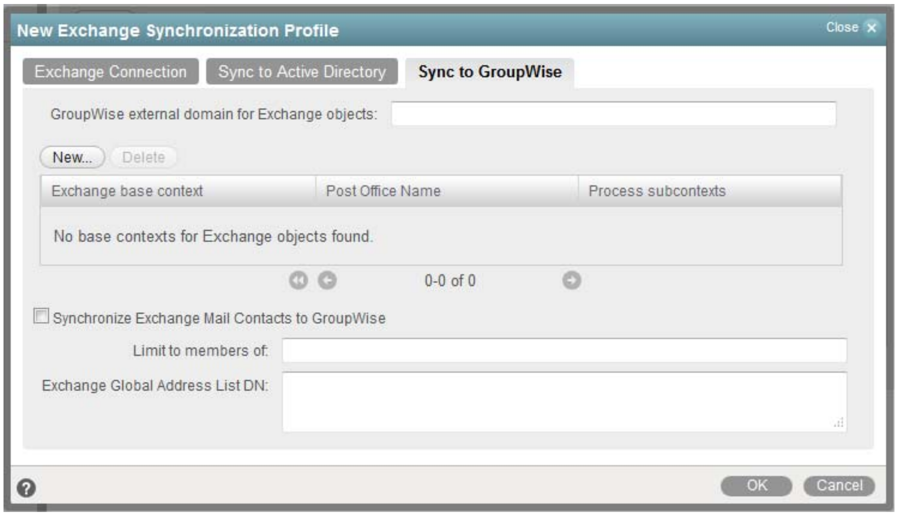
If the connection fails, verify and correct the information that you have provided on the **Exchange Connection** tab and repeat the test until the connection succeeds.

**5d** On the **Sync to Active Directory** tab, fill in the following fields:




Active Directory Context for GroupWise Objects
Internet Agent for default MTA Gateway Link
GroupWise Free/Busy Service URL
Active Directory Display Name Format
Synchronize GroupWise external objects to Exchange
Limit to Members of GroupWise Group

**5e** On the **Sync to GroupWise** tab, fill in the following fields:




GroupWise external domain for Exchange objects
Synchronize Exchange Mail Contacts to GroupWise
Base Contexts of Exchange Objects

Limit to Members of Exchange Distribution Group
Exchange Global Address List DN

**5f** Click **OK** to save the Exchange synchronization profile.

The Exchange synchronization profile is added to the list of profiles for the MTA.

**5g** Repeat Step 5 to create additional Exchange synchronization profiles as needed.

**6** On the **Exchange Synchronization** tab, click **Save**, then click **Close** to save the synchronization settings.

The MTA restarts automatically.

When you enable address book synchronization, it causes all MTAs in your GroupWise system to restart. This is not a noticeable process unless notifications are automatically sent to administrators whenever MTAs restart.

The first automatic address book synchronization takes place according to the synchronization settings that you established in Step 4.

**7** Continue with Performing the Initial Address Book Synchronization.

# Performing the Initial Address Book Synchronization

**1** Verify that address book synchronization has been enabled:

**1a** In the MTA console, click Configuration, then click **Event Log Settings**.

**1b** Set the MTA log level to **Verbose**., then click **Submit**.

Status messages and error messages related to address book synchronization are logged when the MTA log level is set to Verbose, but not when the log level is set to Normal.

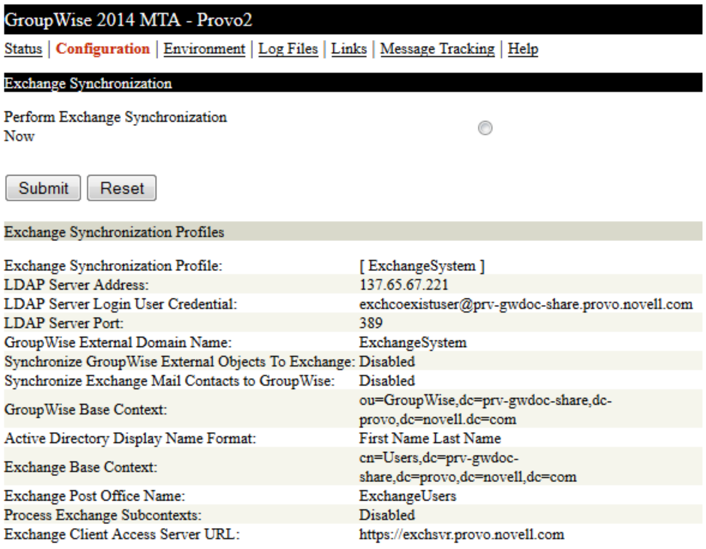
**1c** Click **Configuration** to display the Exchange synchronization settings.

| Exchange Synchronization Settings: | |
|---|---|
| Exchange Address Book Synchronization: | Enabled |
| Current Synchronization Status: | Idle |
| Hour to begin Synchronizaton: | 12:00 AM |
| Interval between Synchronizations (in hours): | 1 |
| Next Scheduled Synchronization Start: | 01/21/2013 13:00:00 |
| Last Synchronization Completed: | 01/21/2013 12:00:15 |

**1d** Review the list of settings that you set in "Configuring the MTA for Address Book Synchronization" on page 26 to verify that address book synchronization is enabled and that the synchronization schedule is configured as expected.

**2** Manually run address book synchronization for the first time:

**2a** On the **Configuration** page, click **Exchange Synchronization Settings** to display the Exchange Synchronization page.




The details of the Exchange synchronization profile that you created in "Configuring the MTA for Address Book Synchronization" on page 26 are listed.

**2b** Verify the information that you provided in the GroupWise Admin console.

**2c** Select **Perform Exchange Synchronization Now**, then click **Submit**.

**3** Check the MTA log file for status and error messages.

**4** Continue with Testing Address Book Synchronization.

# Testing Address Book Synchronization

After you have performed the initial address book synchronization, complete these tasks to assure yourself that you are obtaining the expected results:


- "Verifying the GroupWise External Domain in the GroupWise Admin Console" on page 31
- "Verifying the GroupWise Base Context in Active Directory" on page 32
- "Verifying Address Book Synchronization" on page 32

## Verifying the GroupWise External Domain in the GroupWise Admin Console

1 In the GroupWise Admin console, browse to and client the post office that represents an Active Directory context.

2 On the **Users** tab, verify that the Exchange users in the Active Directory context are represented under the GroupWise External Post Office object.

3 Click **Groups** to verify that the Exchange distribution groups are represented under the GroupWise External Post Office object.

4 Click **Resources** to verify that the Exchange resources are represented under the GroupWise External Post Offices object.

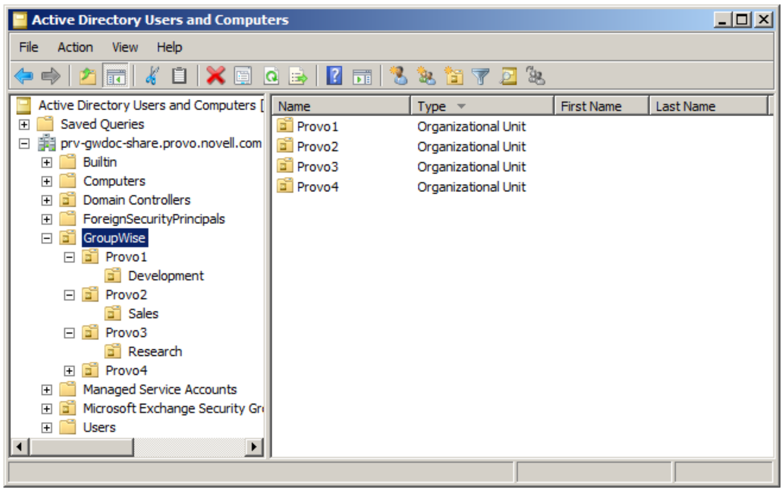
5 Click **Diagnostics > Information** to verify the number of users who have been synchronized from GroupWise to Exchange and from Exchange to GroupWise.

**IMPORTANT:** Remember that Exchange address book synchronization requires its own license. Now that you have enabled it and are synchronizing users, your GroupWise system might be subject to additional licensing charges.

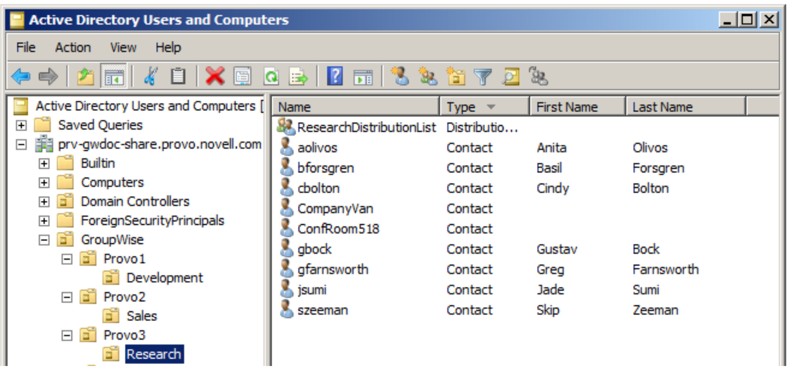
6 Continue with Verifying the GroupWise Base Context in Active Directory.

# Verifying the GroupWise Base Context in Active Directory

1 In Active Directory Users and Groups, browse to the folder where you configured the MTA to create Active Directory Contact objects for GroupWise users.




2 Verify that the GroupWise users, groups, and resources are represented in the folders that represent GroupWise post offices.




3 Continue with Verifying Address Book Synchronization.

# Verifying Address Book Synchronization

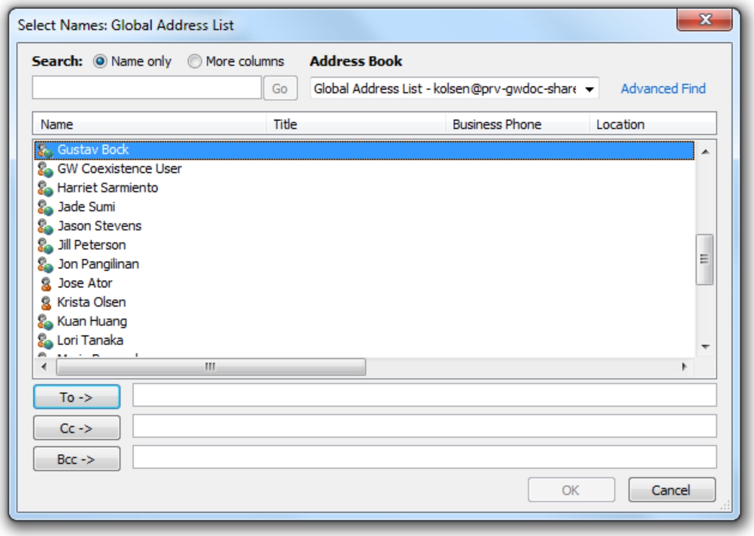
1 Verify that Exchange users, distribution groups, and resources now appear in the GroupWise Address Book.

---

**IMPORTANT:** Users in Online mode see the Exchange users, distribution groups, and resources immediately. Users in Caching mode see the Exchange users, distribution groups, and resources based on their personal schedules for downloading the GroupWise Address Book to their Caching mailbox. For more information, see "Automatically Downloading Address Books to Your Mailbox" in the *GroupWise 18 Client User Guide*.

---

2 Verify that GroupWise users, groups, and resources now appear in the Exchange Global Address List (GAL) in Outlook and in Outlook Web Access.




3 Continue with Monitoring Address Book Synchronization.

# Monitoring Address Book Synchronization

Use the MTA console and log files to verify that address book synchronization continues to occur on the schedule you have configured for it. For more information, see “Performing the Initial Address Book Synchronization” on page 29.

When address book synchronization is functioning correctly, you are ready to set up the GroupWise Free/Busy Service so that GroupWise and Exchange users can have access to each others’ calendar information for convenient scheduling of appointments. See Chapter 3, “GroupWise Free/Busy Service,” on page 35 for setup instructions.

# 3 GroupWise Free/Busy Service

The GroupWise Free/Busy Service is the component of the GroupWise/Exchange coexistence solution that enables GroupWise and Outlook users to access each others' calendar information when scheduling appointments.


- "GroupWise Free/Busy Service Overview" on page 35
- "GroupWise Free/Busy Service System Requirements" on page 37
- "Planning for Free/Busy Searching between GroupWise and Exchange" on page 38
- "Preparing to Install the Free/Busy Service" on page 42
- "Installing the Free/Busy Service" on page 42
- "Configuring the Free/Busy Service" on page 44
- "Starting the Free/Busy Service" on page 45
- "Testing the Free/Busy Service" on page 45
- "Troubleshooting the Free/Busy Service" on page 46
- "Uninstalling the Free/Busy Service" on page 48
- "Configurator Error Codes" on page 49


## GroupWise Free/Busy Service Overview

The GroupWise Free/Busy Service is installed into your Exchange system. Both your GroupWise system and your Exchange system must meet the system requirements of the Free/Busy Service in order for it to function correctly.


- "Free/Busy Service Functionality" on page 35
- "GroupWise Free/Busy Service Architecture" on page 36


### Free/Busy Service Functionality

The GroupWise Free/Busy Service provides the following functionality:

- GroupWise users can perform Busy Searches on Exchange users.

  Exchange users have mailboxes in the Exchange system. Exchange users can use Outlook, Outlook Web App, or another email client to access their mailboxes.
- Outlook and Outlook Web App users can use the Scheduling Assistant to display the schedules of GroupWise users.

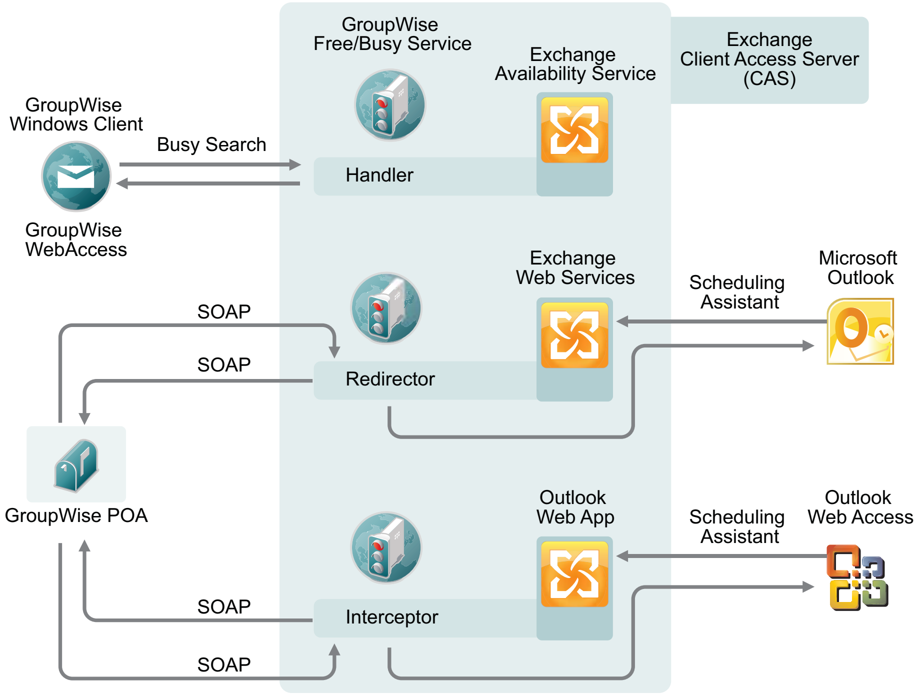
---

**IMPORTANT:** This functionality is dependent on successful address book synchronization between GroupWise and Exchange. For setup instructions, see Chapter 2, "GroupWise/Exchange Address Book Synchronization," on page 9.

---

## GroupWise Free/Busy Service Architecture

The components of the GroupWise Free/Busy Service (Handler, Redirector, and Interceptor) are installed on an Exchange server where the Client Access Server (CAS) role is installed. Each component interacts with a different component of your Exchange system. The following diagram illustrates these interactions:




The following sections explain each Free/Busy Service component:


- "Free/Busy Handler" on page 36
- "Free/Busy Redirector" on page 37
- "Free/Busy Interceptor" on page 37
- "Free/Busy Configurator" on page 37


## Free/Busy Handler

The Free/Busy Handler is an Internet Information Services (IIS) application that processes Microsoft Internet free/busy (`.vfb`) requests. The Free/Busy Handler is installed into the Exchange Availability service.

GroupWise users use Busy Search to make free/busy requests on Exchange users. The FB Handler receives the requests and calls the Exchange Availability service. The Availability service obtains the free/busy information from Exchange mailboxes, and returns that information to the FB Handler. The FB Handler returns the free/busy information to GroupWise for display in a GroupWise client or in GroupWise WebAccess.

## Free/Busy Redirector

The Free/Busy Redirector is an Exchange Web Services (EWS) module that monitors Outlook free/busy requests that are made to EWS. The Free/Busy Redirector is installed into EWS.

Outlook users use the Scheduling Assistant to make free/busy requests through EWS. When a free/busy request includes a GroupWise user, the FB Redirector intercepts the response from EWS and fills in the missing information for the GroupWise user by contacting the GroupWise POA. The POA accesses the GroupWise mailbox, obtains the free/busy information, and returns that information to the FB Redirector. The FB Redirector returns the free/busy information to Outlook for display.

## Free/Busy Interceptor

The Free/Busy Interceptor is an Outlook Web App (OWA) module that monitors Outlook Web App free/busy requests that are made to OWA. The Free/Busy Interceptor is installed into OWA.

Outlook Web App users use the Scheduling Assistant to make free/busy requests through OWA. When a free/busy request includes a GroupWise user, the FB Interceptor intercepts the response from OWA and fills in the missing information for the GroupWise user by contacting the GroupWise POA. The POA accesses the GroupWise mailbox, obtains the free/busy information, and returns that information to the FB Interceptor. The FB Interceptor returns the free/busy information to Outlook Web App for display.

## Free/Busy Configurator

The Free/Busy Configurator is the program used to provide configuration information about your GroupWise and Exchange systems.

During installation, the FB Configurator is called by the GroupWise Free/Busy Service Installation program, so that you can configure the Free/Busy Service.

After installation, run the following program to start the FB Configurator when you need to modify the configuration of the Free/Busy Service:

```
configurator.exe
```

By default, the FB Configurator program is installed to the following directory:

```
C:\Program Files\Novell\FreeBusy Service
```

# GroupWise Free/Busy Service System Requirements

Before you install the GroupWise Free/Busy Service, ensure that your GroupWise and Exchange systems meet the system requirements for use with the GroupWise Free/Busy Service.

After installation, ensure that users' workstations meet GroupWise and Outlook requirements, so that users can benefit from the GroupWise Free/Busy Service.


- "GroupWise System Requirements" on page 38
- "Exchange System Requirements" on page 38

## GroupWise System Requirements

- ❒ GroupWise/Exchange address book synchronization.

  For setup instructions, see Chapter 2, “GroupWise/Exchange Address Book Synchronization,” on page 9.
- ❒ GroupWise 2012 SP2 or later Post Office Agent (POA)
- ❒ GroupWise 2012 SP2 or later GroupWise client

  or
- ❒ GroupWise 2012 SP2 or later WebAccess

  or
- ❒ GroupWise 8 SP2 HP4 Mac client

## Exchange System Requirements

- ❒ Microsoft Exchange 2010 or 2013

  The Client Access Server (CAS) role must be installed on Exchange servers where you install the GroupWise Free/Busy Service.
- ❒ Microsoft Outlook 2010

  or
- ❒ Microsoft Outlook Web App

# Planning for Free/Busy Searching between GroupWise and Exchange

The GroupWise Free/Busy Service Installation program helps you install the GroupWise Free/Busy Service on an Exchange server where the Client Access Server (CAS) role is installed. The Free/Busy Configurator helps you configure the service to communicate with your GroupWise and Exchange systems.

Use the GroupWise Free/Busy Service Installation Worksheet to record the information that you need to know as you perform the installation and configure the service.


- “Gathering GroupWise System Information” on page 38
- “Gathering Exchange System Information” on page 40
- “GroupWise Free/Busy Service Installation Worksheet” on page 41


## Gathering GroupWise System Information

In order to configure the GroupWise Free/Busy Service, you need to gather certain information about the GroupWise system where users regularly need free/busy calendar information about Outlook users.


- “GroupWise POA” on page 39
- “GroupWise Authentication Credentials” on page 39
- “GroupWise Internet Domain Names” on page 40

## GroupWise POA

The GroupWise Free/Busy Service accesses your GroupWise system by communicating with a Post Office Agent (POA). The selected POA must be configured for SOAP. For more information, see "Supporting SOAP Clients" in the *GroupWise 18 Administration Guide*. The selected POA can obtain information about all users in all post offices in your GroupWise system.

This POA can be an existing POA or a new POA set up specifically to handle requests for the GroupWise Free/Busy Service. It can be inside your firewall or outside your firewall, depending on your network security requirements.

The Free/Busy Configurator needs the IP address or DNS hostname of the server where the POA is running. In addition, it needs the POA SOAP port, which is 7191 by default. Typically, the same port number is used regardless of whether the POA is configured for a secure SSL SOAP connection. The Free/Busy Service needs to know if the connection is secure, because it uses one of the following URLs to communicate with the POA:

| | |
|---|---|
| Non-Secure SOAP URL: | `http://poa_server_address:soap_port/soap` |
| Secure SOAP URL: | `https://poa_server_address:soap_port/soap` |

**GROUPWISE FREE/BUSY INSTALLATION WORKSHEET**

Under **GroupWise POA Server**, specify the IP address or DNS hostname of the server where a POA configured for SOAP is running.

Under **GroupWise POA SOAP Port**, specify the SOAP port number.

Under **Use HTTPS for GroupWise Server Access**, mark **Yes** or **No** depending on whether the POA requires a secure SSL SOAP connection.

## GroupWise Authentication Credentials

The GroupWise Free/Busy Service needs to authenticate to the POA as a specific GroupWise user. This user logs in to the POA that is configured to communicate with the Free/Busy Service. This POA then performs SOAP requests to obtain users' free/busy calendar information whenever GroupWise users perform Busy Searches on Exchange users.

You should create a new, dedicated Free/Busy Service user specifically for this purpose, rather than using an existing GroupWise user. You must create the Free/Busy Service user on the POA that you configure the Free/Busy Service to communicate with.

**IMPORTANT:** To ensure permanent access, set up the Free/Busy Service user to be exempt from password expiration rules.

The Free/Busy Configurator needs to know the user name and password for the Free/Busy Service user.

**GROUPWISE FREE/BUSY INSTALLATION WORKSHEET**

Under **GroupWise Account for Busy Searches**, specify the user name for the Free/Busy Service to use when logging in to the POA for Busy Searches.

Under **GroupWise Password**, specify the password for the Free/Busy Service user.

**IMPORTANT:** Create the Free/Busy Service user now by following the instructions in "Manually Creating GroupWise Accounts" in the *GroupWise 18 Administration Guide*, so that the user is available when you run the GroupWise Free/Busy Service Installation program.

## GroupWise Internet Domain Names

Messages passing between GroupWise users and Exchange users pass through the GroupWise Internet Agent (GWIA). Your GroupWise system has one or more Internet domain names configured for it. For more information, see "Managing Internet Domains, Addressing, and Access" in the *GroupWise 18 Administration Guide*.

The Free/Busy Configurator needs to know all of the Internet domain names that might follow the at-sign (@) in GroupWise users' email addresses where those GroupWise users want to exchange free/busy calendar information with Exchange users.

**GROUPWISE FREE/BUSY INSTALLATION WORKSHEET**

Under **GroupWise Internet Domain Names**, list the Internet domain names associated with your GroupWise system.

# Gathering Exchange System Information

In order to configure the GroupWise Free/Busy Service as you run the Installation program and Configurator, you need to gather certain information about the Exchange system where users regularly need free/busy calendar information about GroupWise users.

- "Exchange Server" on page 40
- "Exchange Authentication Credentials" on page 41

## Exchange Server

The GroupWise Free/Busy Service must be installed on an Exchange server that meets the system requirements listed in "Exchange System Requirements" on page 38. The Free/Busy Configurator needs to know the IP address or DNS hostname of the Exchange server that the GroupWise Free/Busy Service will communicate with.

**GROUPWISE FREE/BUSY INSTALLATION WORKSHEET**

Under **Exchange Server**, specify the IP address or DNS hostname of the Exchange server where you plan to install the GroupWise Free/Busy Service.

**IMPORTANT:** For a complete installation, the GroupWise Free/Busy Service must be installed on all CAS servers in your Exchange system. Initially, you install the Free/Busy Service on one CAS server. After you test the first instance, you install it on the remaining CAS servers in your Exchange system. For setup instructions, see the following sections:

- "Installing the First Instance of the Free/Busy Service" on page 42
- "Installing Additional Instances of the Free/Busy Service" on page 43

## Exchange Authentication Credentials

The GroupWise Free/Busy Service needs to authenticate to your Exchange system as a specific user.

You should create a new, dedicated Free/Busy Service user specifically for this purpose, rather than using an existing Exchange user. The Free/Busy Service user needs sufficient rights to obtain free/busy calendar information on all Exchange users. By default, all users have this level of mailbox access.

**IMPORTANT:** To ensure permanent access, set up the Free/Busy Service user to be exempt from password expiration rules.

The Free/Busy Configurator needs to know the user name and password for the Free/Busy Service user, as well as the name of the domain that Exchange users authenticate to.

**GROUPWISE FREE/BUSY INSTALLATION WORKSHEET**

Under **Exchange User**, specify the user name for the Free/Busy Service to use when logging in to the POA.

Under **Exchange Password**, specify the password for the Free/Busy Service user.

Under **Exchange Domain**, specify the name of the domain that the Free/Busy Service user can authenticate.

**IMPORTANT:** Create the Free/Busy Service user in your Exchange system now, so that it is available when you run the GroupWise Free/Busy Service Installation program.

# GroupWise Free/Busy Service Installation Worksheet

| Installation Program Field | Value for Your GroupWise or Exchange System | Explanation |
|---|---|---|
| **GroupWise POA Server:** | | “GroupWise POA” on page 39 |
| **GroupWise POA SOAP Port:**<br>Default: 7191 | | “GroupWise POA” on page 39 |
| **GroupWise Account for Busy Searches:** | | “GroupWise Authentication Credentials” on page 39 |
| **GroupWise Password:** | | “GroupWise Authentication Credentials” on page 39 |
| **Use HTTPS for GroupWise Server Access:**<br>◆ Yes<br>◆ No | | “GroupWise POA” on page 39 |

| Installation Program Field | Value for Your GroupWise or Exchange System | Explanation |
|---|---|---|
| **GroupWise Internet Domain Names:**<br>◆<br>◆<br>◆ | | "GroupWise Internet Domain Names" on page 40 |
| **Exchange Server:** | | "Exchange Server" on page 40 |
| **Exchange User:** | | "Exchange Authentication Credentials" on page 41 |
| **Exchange Password:** | | "Exchange Authentication Credentials" on page 41 |
| **Exchange Domain:** | | "Exchange Authentication Credentials" on page 41 |

# Preparing to Install the Free/Busy Service

**1** Ensure that address book synchronization is set up and functioning successfully.

See Chapter 2, "GroupWise/Exchange Address Book Synchronization," on page 9.

**2** Create the new, dedicated Free/Busy Service user in your GroupWise system.

See "GroupWise Authentication Credentials" on page 39.

**3** Create the new, dedicated Free/Busy Service user in your Exchange system.

"Exchange Authentication Credentials" on page 41

**4** Ensure that the Free/Busy Service users are exempt from password expiration rules.

**5** Ensure that the CAS server where you plan to install the GroupWise Free/Busy Service meets the system requirements.

See "Exchange System Requirements" on page 38.

**6** Continue with Installing the Free/Busy Service.

# Installing the Free/Busy Service

You should install the first instance of the GroupWise Free/Busy Service on a CAS server in your Exchange system where it is convenient for you to test the capabilities of the Free/Busy Service. Then you must install the Free/Busy Service on all CAS servers in your Exchange system.

- "Installing the First Instance of the Free/Busy Service" on page 42
- "Installing Additional Instances of the Free/Busy Service" on page 43

## Installing the First Instance of the Free/Busy Service

**1** Log in to Windows as an Administrator-equivalent user.

**2** Download the GroupWise Free/Busy Service from the Novell Patches site.

3 Run `setup.exe` in the `/win64` directory of the download.

4 Follow the prompts to install the GroupWise Free/Busy Service.

By default, the GroupWise Free/Busy Service files are installed to the following locations on the CAS server:

| Component | Location |
|---|---|
| Free/Busy Handler | `C:\inetpub\wwwroot\ngwfbs` |
| Free/Busy Redirector | `C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\exchweb\ews` |
| Free/Busy Interceptor | `C:\Program Files\Microsoft\Exchange Server\V14\ClientAccess\owa` |
| Free/Busy Configurator | `C:\Program Files\Novell\FreeBusy Service` |

5 Continue with "Configuring the Free/Busy Service" on page 44.

## Installing Additional Instances of the Free/Busy Service

After the first instance of the GroupWise Free/Busy Service is running smoothly, you can export its configuration information to use as the default configuration as you install the Free/Busy Service on additional CAS servers in your Exchange system.

1 Start the Free/Busy Configurator for the first instance of the GroupWise Free/Busy Service.

```
C:\Program Files\Novell\FreeBusy Service\configurator.exe
```

2 Click **File > Export** to save the configuration information for the GroupWise Free/Busy Service to a text file.

By default, the configuration file is named:

```
novell_groupwise_freebusy_service_config.cfg
```

By default, the configuration file is created in the same directory where you installed the GroupWise Free/Busy Service.

3 Change the file name and location as needed, then click **Save**.

4 Copy the configuration file to all CAS servers where you plan to install the GroupWise Free/Busy Service.

5 On each CAS server, install the GroupWise Free/Busy Service by following the instructions in "Installing the First Instance of the Free/Busy Service" on page 42.

6 From the Installation Wizard, continue into the Free/Busy Configurator.

7 Click **File > Import**.

8 Browse to and select the configuration file that you copied from the first CAS server, then click **Open**.

The information from the configuration file fills in the fields in the Free/Busy Configurator.

You use the same GroupWise configuration information on all CAS servers in your Exchange system.

9 Click the **Exchange** tab.

10 Modify the CAS server information as needed.

11 Click **Save** to copy the configuration information to the Windows registry.

12 Click **Test Configuration** to validate the Exchange configuration information for the new CAS server.

13 Test the GroupWise Free/Busy Service installation on the new CAS server.

For instructions, see "Testing the Free/Busy Service" on page 45

14 Repeat this procedure for each CAS server in your Exchange system.

# Configuring the Free/Busy Service

The Free/Busy Configurator helps you configure the GroupWise Free/Busy Service immediately after installation.

1 (Conditional) If you need to reconfigure the GroupWise Free/Busy Service after initial installation, run the following program as Administrator to manually start the Free/Busy Configurator:

```
C:\Program Files\Novell\FreeBusy Service\configurator.exe
```

2 On the **GroupWise** tab, fill in the following fields with information from the GroupWise/Exchange Address Book Synchronization Worksheet:

GroupWise POA Server
GroupWise POA SOAP Port
GroupWise Account for Busy Searches
GroupWise Password
Use HTTPS for GroupWise Server Access
GroupWise Internet Domain Names

3 Click **Save & Test** to check the GroupWise configuration information.

The Configurator saves the configuration information to the Windows registry.

4 Click **Yes** to confirm the saving of the configuration information.

The Free/Busy Configurator then uses the saved information to determine whether the configuration information that you have provided enables the GroupWise Free/Busy Service to communicate with the GroupWise POA and with the CAS server.

5 If the test is successful, click **OK** to confirm.

or

If you receive an error:

5a Click **Yes** in the error dialog box to display an explanation of the error code and suggestions for resolving it.

A complete list of error codes is available in "Configurator Error Codes" on page 49.

5b Resolve the error, then click **Save & Test** again.

5c (Conditional) If you receive another error, repeat Step 3 through Step 5 until no errors occur.

6 Click the **Exchange** tab.

7 Fill in the following fields with information from the GroupWise/Exchange Address Book Synchronization Worksheet:

Exchange Server
Exchange User
Exchange Password
Use HTTPS for Exchange Server Access

Exchange Domain

8 Click **Save & Test** to check the Exchange configuration information.

9 (Conditional) If necessary, resolve errors and repeat the test until no errors occur.

10 Click **File > Exit** to exit the Free/Busy Configurator.

It is not necessary to restart the server after you install and configure the GroupWise Free/Busy Service.

# Starting the Free/Busy Service

The GroupWise Free/Busy Service consists of three components that are installed into three Windows components:

| Free/Busy Service Component | Windows Service |
|---|---|
| Free/Busy Handler | Internet information Services (IIS) |
| Free/Busy Redirector | Exchange Web Services (EWS) |
| Free/Busy Interceptor | Outlook Web App (OWA) |

At the end of the installation process, all three components of the GroupWise Free/Busy Service are running.

Whenever you restart the Windows server, the GroupWise Free/Busy Service automatically restarts along with it. Whenever you restart IIS where the GroupWise Free/Busy Service has been installed, the Free/Busy Service automatically starts along with it.

There is no need to manually restart the GroupWise Free/Busy Service.

# Testing the Free/Busy Service

When the GroupWise Free/Busy Service is running correctly, GroupWise users can perform Busy Searches on Outlook users and Outlook users can use the Scheduling Assistant to display the schedules of GroupWise users.

**IMPORTANT:** In order for GroupWise and Outlook users to appear in each other's Address Books, the GroupWise Message Transfer Agent (MTA) must be configured for address book synchronization. For instructions, see Chapter 2, "GroupWise/Exchange Address Book Synchronization," on page 9.


- "Testing the Free/Busy Service from GroupWise" on page 45
- "Testing the Free/Busy Service from Outlook" on page 46


## Testing the Free/Busy Service from GroupWise

1 In the GroupWise client, click **New Appointment** on the toolbar.

or

In GroupWise WebAccess, click **Appointment** on the toolbar.

2 In the **To** field, start typing the name of an Outlook user.

If the name does not auto-complete, address book synchronization between GroupWise and Exchange is not working correctly. See "Testing Address Book Synchronization" on page 30.

3 Click **Busy Search**.

If the Busy Search dialog box populates with the Outlook user's schedule, the GroupWise Free/Busy Service is working correctly.

4 (Conditional) If the Outlook user's schedule does not appear, see "Troubleshooting the Free/Busy Service" on page 46.

## Testing the Free/Busy Service from Outlook

1 In Outlook, click **New Appointment** on the ribbon.

or

In Outlook Web App, click **New > Meeting Request**.

2 Click **Scheduling Assistant**.

3 In the **Attendees** list, start typing the name of a GroupWise user, then press Enter.

If the name does not auto-complete, address book synchronization between GroupWise and Exchange is not working correctly. See "Testing Address Book Synchronization" on page 30.

If the Scheduling Assistant window populates with the GroupWise user's schedule, the GroupWise Free/Busy Service is working correctly.

4 (Conditional) If the GroupWise user's schedule does not appear, see "Troubleshooting the Free/Busy Service" on page 46.

# Troubleshooting the Free/Busy Service

The Test Configuration option in the Free/Busy Configurator helps you provide accurate configuration information about your GroupWise and Exchange systems. Typically, after accurate configuration information is provided, the GroupWise Free/Busy Service starts successfully and continues to run dependably.

If you experience a problem with the GroupWise Free/Busy Service after it has been running successfully, consider the following:


- "Working with Internet Information Services" on page 46
- "Working with Log Files" on page 46
- "Working with Raw Free/Busy Data" on page 48


## Working with Internet Information Services

The GroupWise Free/Busy Service is installed into Internet Information Services (IIS). If you experience problems with IIS, the Free/Busy Service can also experience problems. When you restart IIS, the Free/Busy Service automatically restarts.

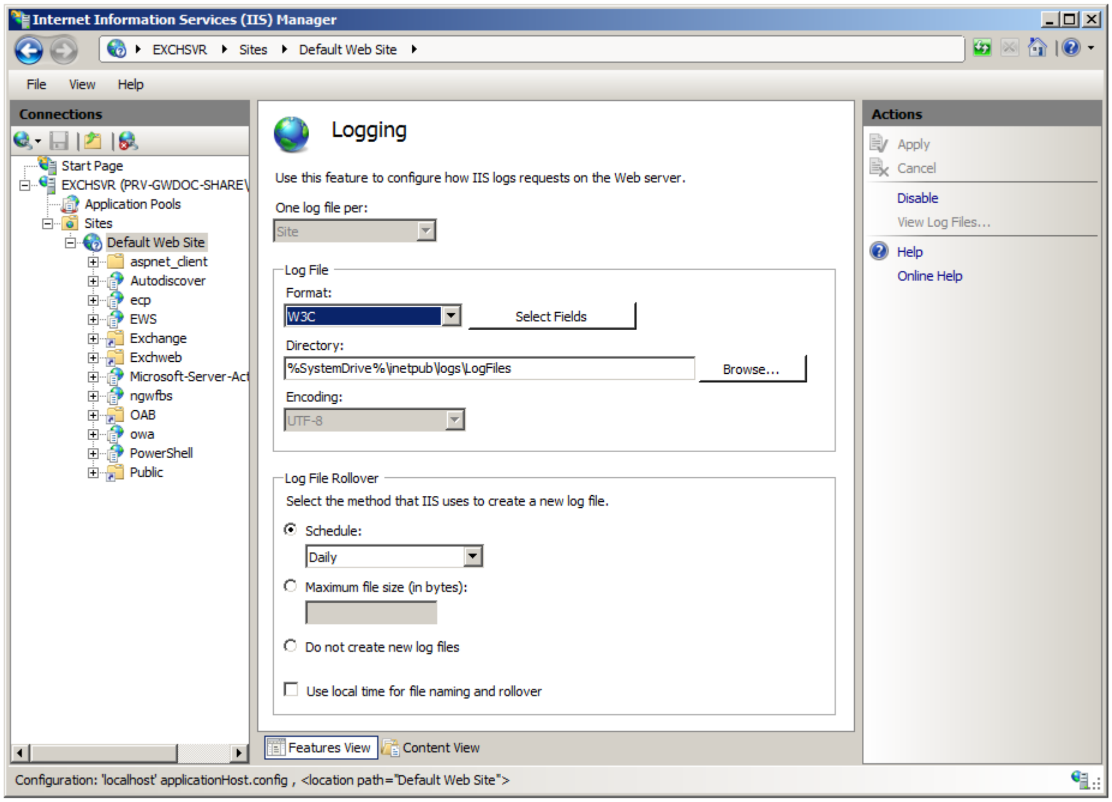
## Working with Log Files

By default, GroupWise Free/Busy Service log files are located in the following directory:

```
C:\inetpub\logs\logfiles\ngwfbs
```

Each GroupWise Free/Busy Service component writes to its own log file in that directory.

By default, the GroupWise Free/Busy Service uses the default logging configuration for the IIS website where it is installed, or the logging configuration for EWS, OWA, and NGWFBS if the logging for these modules has been customized.




The GroupWise Free/Busy Service uses Apache log4net (http://logging.apache.org/log4net/) to manage its log files. The log4net configuration file for each module is located one directory up from the DLL for each module.

| Component | Location of Logging Configuration File |
|---|---|
| Free/Busy Handler | `C:\inetpub\wwwroot\ngwfbs\`<br>`novell.fbservice.handler.dll.config.xml` |
| Free/Busy Redirector | `C:\Program Files\Microsoft\Exchange Server\V14\`<br>`ClientAccess\exchweb\ews\`<br>`novell.fbservice.redirector.dll.config.xml` |
| Free/Busy Interceptor | `C:\Program Files\Microsoft\Exchange Server\V14\`<br>`ClientAccess\owa\`<br>`novell.fbservice.interceptor.dll.config.xml` |

Various aspects of logging can be customized in the log4net configuration file for each component, including the log file name, maximum log file size, and log level.

```
- <log4net>
  - <appender name="RollingFile" type="log4net.Appender.RollingFileAppender">
      <file value="${NGWFBSLOGS}\\Handler.log" />
      <appendToFile value="true" />
      <rollingStyle value="Composite" />
      <datePattern value="yyyyMMdd" />
      <maximumFileSize value="100KB" />
      <maxSizeRollBackups value="10" />
    - <layout type="log4net.Layout.PatternLayout">
        <conversionPattern value="%date [%thread] %-5level - %message%newline" />
      </layout>
    </appender>
  - <root>
      <level value="DEBUG" />
      <appender-ref ref="RollingFile" />
    </root>
  </log4net>
```

Use any ASCII text editor to modify the log4net configuration file for each component as needed.

## Working with Raw Free/Busy Data

You can view the raw free/busy calendar data that the GroupWise Free/Busy Service works with by viewing the following URLs:

```
https://exchange_server/ngwfbs/exchange/exchange_userid@exchange_domain.vfb
https://exchange_server/ngwfbs/groupwise/gw_userid@gw_internet_domain.vfb
```

When the GroupWise Free/Busy Service is running normally, the output for a user should look similar to the following example:

```
BEGIN:VCALENDAR VERSION:2.0 PRODID:Microsoft Exchange METHOD:PUBLISH BEGIN:VFREEBUSY ORGANIZER:MAILTO:kolsen@prv-gwdoc-share.provo.novell.com
DTSTART:20120614T164819Z DTEND:20120714T164819Z DTSTAMP:20120614T224820Z FREEBUSY:20120614T193000Z/20120614T200000Z
FREEBUSY:20120614T213000Z/20120614T220000Z FREEBUSY:20120615T213000Z/20120615T220000Z FREEBUSY:20120616T213000Z/20120616T220000Z
FREEBUSY:20120617T213000Z/20120617T220000Z FREEBUSY:20120618T213000Z/20120618T220000Z FREEBUSY:20120619T213000Z/20120619T220000Z
FREEBUSY:20120620T213000Z/20120620T220000Z FREEBUSY:20120621T193000Z/20120621T200000Z FREEBUSY:20120621T213000Z/20120621T220000Z
FREEBUSY:20120622T213000Z/20120622T220000Z FREEBUSY:20120623T213000Z/20120623T220000Z FREEBUSY:20120624T213000Z/20120624T220000Z
FREEBUSY:20120625T213000Z/20120625T220000Z FREEBUSY:20120626T213000Z/20120626T220000Z FREEBUSY:20120627T213000Z/20120627T220000Z
FREEBUSY:20120628T193000Z/20120628T200000Z FREEBUSY:20120628T213000Z/20120628T220000Z FREEBUSY:20120629T213000Z/20120629T220000Z
FREEBUSY:20120630T213000Z/20120630T220000Z FREEBUSY:20120701T213000Z/20120701T220000Z FREEBUSY:20120702T213000Z/20120702T220000Z
FREEBUSY:20120703T213000Z/20120703T220000Z FREEBUSY:20120704T213000Z/20120704T220000Z FREEBUSY:20120705T193000Z/20120705T200000Z
FREEBUSY:20120705T213000Z/20120705T220000Z FREEBUSY:20120706T213000Z/20120706T220000Z FREEBUSY:20120707T213000Z/20120707T220000Z
FREEBUSY:20120708T213000Z/20120708T220000Z FREEBUSY:20120709T213000Z/20120709T220000Z FREEBUSY:20120710T213000Z/20120710T220000Z
FREEBUSY:20120711T213000Z/20120711T220000Z FREEBUSY:20120712T193000Z/20120712T200000Z FREEBUSY:20120712T213000Z/20120712T220000Z
FREEBUSY:20120713T213000Z/20120713T220000Z END:VFREEBUSY END:VCALENDAR
```

# Uninstalling the Free/Busy Service

1. Change to the `freebusy` subdirectory in the downloaded *GroupWise 18* software image.
2. Run the GroupWise Free/Busy Service Installation program:

   `novell_groupwise_freebusy_service_en_x64.exe`

3. Click **Next** to begin.
4. Click **Remove** to uninstall the Free/Busy Service from the server.
5. Click **Remove** again to begin the uninstallation.
6. Click **Finish** when the uninstallation is complete.

# Configurator Error Codes

The Free/Busy Configurator returns one of the following error codes if you provide invalid information in a field:

- Error Code 1
- Error Code 2
- Error Code 3
- Error Code 4
- Error Code 5
- Error Code 6
- Error Code 7
- Error Code 8
- Error Code 9
- Error Code 10
- Error Code 11
- Error Code 12
- Error Code 13
- Error Code 14
- Error Code 15
- Error Code 16
- Error Code 17
- Error Code 18
- Error Code 19
- Error Code 20
- Error Code 21
- Error Code 22

## Error Code 1: Missing GroupWise Server

Possible Cause: The **GroupWise POA Server** field is empty.

Action: Specify the IP address or DNS hostname of a GroupWise POA that has SOAP enabled.

## Error Code 2: Missing GroupWise User

Possible Cause: The **GroupWise Account for Busy Searches** field is empty.

Action: Specify the user name for the GroupWise Free/Busy Service to use to authenticate to the GroupWise POA for performing Busy Searches.

## Error Code 3: Missing GroupWise Password

Possible Cause: The **GroupWise Password** field is empty.

Action: Specify the password for the GroupWise Free/Busy Service user.

## Error Code 4: Missing GroupWise Internet Domain

Possible Cause: The **GroupWise Internet Domain Names** field is empty.

Action: Specify all of the Internet domain names that might appear in email addresses of GroupWise users. Use a comma-delimited list.

## Error Code 5: Missing Exchange Server

Possible Cause: The **Exchange Server** field is empty.

Action: Specify the IP address or DNS hostname of your Exchange server.

## Error Code 6: Missing Exchange User

Possible Cause: The **Exchange User** field is empty.

Action: Specify the user name for the GroupWise Free/Busy Service to use to authenticate to Exchange Web Services (EWS).

## Error Code 7: Missing Exchange Password

Possible Cause: The **Exchange Password** field is empty.

Action: Specify the password for the Exchange user.

## Error Code 8: Missing Exchange Domain

Possible Cause: The **Exchange Domain** field is empty.

Action: Specify the name of the domain that the Exchange user authenticates to.

## Error Code 9: Cannot Connect to GroupWise Server: Unexpected Error

Explanation: The GroupWise Free/Busy Service cannot communicate with the POA for an unknown reason.

Possible Cause: Unknown.

Action: Verify the information that you have provided for the GroupWise server and POA.

Action: Verify that the GroupWise server is up and that the POA is running.

## Error Code 10: Cannot Connect to GroupWise Server: GroupWise Engine Error *error_code*

Explanation: The GroupWise Free/Busy Service cannot communicate with the POA for a reason that is identified as a GroupWise engine error.

Possible Cause: Varied, depending on the ending error code.

Action: Look up the engine error code in "GroupWise Engine Error Codes", then resolve the issue.

## Error Code 11: Cannot Connect to GroupWise Server: SSL Denied

Explanation: The GroupWise Free/Busy Service cannot communicate with the POA because the POA is not configured to use SSL, but the GroupWise Free/Busy Service is trying to use SSL to communicate with the POA.

Possible Cause: The default setting for the **Use HTTPS for GroupWise Server Access** conflicts with the current configuration of the POA.

Action: Deselect **Use HTTPS for GroupWise Server Access**, so that the Free/Busy Service does not use SSL.

or

Reconfigure the POA to use SSL.

For more information, see "Securing the Post Office with SSL Connections to the POA" in the *GroupWise 18 Administration Guide*.

## Error Code 12: Cannot Connect to GroupWise Server: SSL Required

Explanation: The GroupWise Free/Busy Service cannot communicate with the POA because the POA is configured to require SSL, but the GroupWise Free/Busy Service is trying to communicate without using SSL.

Possible Cause: You deselected **Use HTTPS for GroupWise Server Access**.

Action: Select **Use HTTPS for GroupWise Server Access** so that both the GroupWise Free/Busy Service and the POA require SSL.

or

Reconfigure the POA so that it does not require SSL, so that neither the GroupWise Free/Busy Service nor the POA requires SSL.

For more information, see "Securing the Post Office with SSL Connections to the POA" in the *GroupWise 18 Administration Guide*.

## Error Code 13: Cannot Connect to GroupWise Server: Invalid Certificate

Explanation: The GroupWise Free/Busy Service cannot communicate with the POA because the POA server does not have a valid SSL certificate.

Possible Cause: The certificate has expired.

Action: Obtain a valid SSL certificate for the POA server.

For more information, see "Server Certificates and SSL Encryption" in the *GroupWise 18 Administration Guide*.

## Error Code 14: Cannot Connect to GroupWise Server: Invalid User

Possible Cause: The **GroupWise Account for Busy Searches** field contains an invalid user name.

Action: Specify the user name for the GroupWise Free/Busy Service to use to authenticate to the GroupWise POA for performing Busy Searches.

Action: Use the Free/Busy Service user to manually log in to GroupWise to ensure that it is a valid GroupWise user.

## Error Code 15: Cannot Connect to GroupWise Server: Invalid Password

Possible Cause: The **GroupWise Password** field contains an invalid password.

Action: Specify the password for the GroupWise Free/Busy Service user.

Action: Use the Free/Busy Service user and password to manually log in to GroupWise to ensure that the password is valid.

## Error Code 16: Cannot Connect to GroupWise Server: Wrong POA

Explanation: The GroupWise Free/Busy Service successfully contacted the POA. However, the GroupWise user is not a user on the POA's local post office. The Free/Busy Service does not currently handle redirection. It must authenticate to the POA for the post office where the user resides.

Possible Cause: The POA specified in the **GroupWise POA Server** field is not the POA for the post office where you created the Free/Busy Service user.

Action: Specify the IP address or DNS hostname of the POA for the post office where the Free/Busy Service user resides.

Possible Cause: You created the Free/Busy Service user in a different post office from the one that you now want the Free/Busy Service to communicate with.

Action: Move the Free/Busy Service user to the post office serviced by the POA specified in the **GroupWise POA Server field**.

## Error Code 17: Cannot Connect to GroupWise Server: Invalid IP Address

Explanation: The GroupWise Free/Busy Service cannot contact the POA at the IP address specified in the **GroupWise POA Server** field.

Possible Cause: You specified an incorrect IP address or mistyped it.

Action: Specify the correct IP address for the POA server.

## Error Code 18: Cannot Connect to GroupWise Server: Invalid DNS Hostname

Explanation: The GroupWise Free/Busy Service cannot contact the POA at the DNS hostname specified in the **GroupWise POA Server** field because the DNS hostname does not resolve to a valid IP address.

Possible Cause: You specified an incorrect DNS hostname or mistyped it.

Action: Specify the correct DNS hostname for the POA server.

## Error Code 19: Cannot Connect to Exchange Server: Unexpected Error

Explanation: The GroupWise Free/Busy Service cannot communicate with the Exchange server for an unknown reason.

Possible Cause: Unknown.

Action: Verify the information that you have provided for the Exchange server.

Action: Verify that the Exchange server is currently running.

## Error Code 20: Cannot Connect to Exchange Server: Invalid User or Password

Possible Cause: The **Exchange User** field does not contain a valid Exchange user name.

Possible Cause: The **Exchange Password** field does not contain the password for the Exchange user.

Action: Provide valid credentials for the Exchange user.

## Error Code 21: Cannot Connect to Exchange Server: SSL Required

Explanation: The GroupWise Free/Busy Service cannot communicate with the Exchange server because of a problem with SSL. Both the Free/Busy Service and Exchange require SSL.

Possible Cause: Unknown.

Action: Unknown.

## Error Code 22: Cannot Connect to Exchange Server: Invalid DNS Hostname

Explanation: The GroupWise Free/Busy Service cannot contact the Exchange server at the DNS hostname specified in the **Exchange Server** field because the DNS hostname does not resolve to a valid IP address.

Possible Cause: You specified an incorrect DNS hostname or mistyped it.

Action: Specify the correct DNS hostname for the Exchange server.

# A Preexisting GroupWise/Exchange Synchronization

If you are already synchronizing data between your GroupWise and Exchange systems, it is vital to consider how to handle the existing data in each system. Sync solutions transfer users and attributes in various ways and to various locations in the GroupWise and Exchange systems. If you need to retain previously synced users and any modifications made to those users, some customization of the process of setting up the GroupWise/Exchange coexistence solution might be required.

You might be able to implement the GroupWise/Exchange coexistence solution yourself, or you might be benefitted by the participation of Micro Focus Consulting as you prepare to implement the GroupWise/Exchange coexistence solution.


- "You Can Handle the Implementation Yourself If..." on page 55
- "You Would Benefit from Micro Focus Consulting If..." on page 56


## You Can Handle the Implementation Yourself If...

Installing, configuring, and running the GroupWise/Exchange coexistence solution yourself works best in a scenario where you do not need to retain previously synced information. This includes the following situations:

- You are currently syncing users between the two systems, but you are not satisfied with the solution you are using.

  In this case, you are not concerned with retaining previously synced information. You are willing to delete the previously synced users and begin anew.

  If you choose this approach, you lose the following:

  - Previously synced users
  - System and personal group memberships for previously synced users
  - The ability for users to reply to existing messages that originated outside their respective systems

    This means that Exchange users will not be able to reply to existing messages from GroupWise users, and GroupWise users will not be able to reply to existing messages from Exchange users.
  - Correct email addresses for Exchange users in GroupWise personal address books

    GroupWise users might encounter missing entries or duplicate entries for Exchange users in their personal address books, including the Frequent Contacts address book. When they select Exchange users from the GroupWise Address Book, email addresses are correct.
- You are currently syncing users between the two systems, and you are satisfied with the sync solution you are using.

  In this case, you would retain your existing sync solution and only use the GroupWise Free/Busy Service functionality of the GroupWise/Exchange coexistence solution. You would not need to implement the GroupWise/Exchange Address Book Synchronization functionality. However, you

would need to determine how to populate the free/busy URL attribute for the synced users. This attribute displays in the **Free/Busy** field on the **Details** tab of a contact in a GroupWise address book. You could populate the attribute by:

* Manually adding the free/busy URL to Exchange users in the GroupWise Admin console. Right-click each External User object that represents an Exchange user, click **Properties > GroupWise > Internet Free/Busy Search**, then specify the free/busy search URL for the Exchange user.
* Configure your existing sync solution to populate this attribute on External User objects.

# You Would Benefit from Micro Focus Consulting If...

Working with Micro Focus Consulting to install, configure, and run the GroupWise/Exchange coexistence solution yourself works best when you want to retain previously synced information. This includes the following situations:

* You want to transfer or merge previously synced user information.

  This applies when you have previously synced users and want to retain modifications made to those users. These changes include system and personal group memberships and the ability to reply to existing messages that were sent between the two systems.

  In addition to third-party sync solutions, this situation applies if you are currently using the GroupWise Gateway for Microsoft Exchange. The GroupWise/Exchange coexistence solution is a more advanced replacement for, not an upgrade from, the GroupWise Gateway for Microsoft Exchange. If you want to retain information previously synced by the GroupWise Gateway for Microsoft Exchange, you might need some customized assistance depending on the information you want to retain.
* You are syncing user attributes beyond those attributes required for basic email capabilities.

  An example of this would be the directory Password attribute. If you are syncing attributes that also give users capabilities outside the email systems, such as general eDirectory access to non-email applications, you need a directory synchronization solution such as Micro Focus Identity Manager, rather than the GroupWise/Exchange coexistence solution.